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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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07/31/2001

Biao Lu

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4004

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7590

07/13/2005

BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 GATEHOUSE ROAD
SUITE 100 EAST
FALLS CHURCH, VA 22042-1248

EXAMINER

HARPER, KEVIN C

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/919,779

Applicant(s)

LU ET AL.

Examiner

Kevin C. Harper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Drawings

1. The drawings are objected to because in fig 2a, one of items 201-206 should be labeled “node” and one of items 10-20 should be labeled “user” for clarity (37 CFR 1.83(a)). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 8-9 and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakauchi (US 5,239,537).

2. Regarding claims 8-9, Sakauchi discloses a protected path for protecting a span in a communication network (fig. 2), where the span connects a first node (fig. 1, node 1) to a second node (node 6). The protected path comprises a pre-computer protection virtual path (fig. 2, VII) from a transit list (fig. 3) for connecting the first and second node through at least a third node (nodes 3 and 5; col. 5, lines 5-8) using a routing protocol and a signaling protocol (col. 2, lines 8-15; col. 2, lines 58-63; note: inherent signaling to set-up connections) and an automatic switch for monitoring a failure condition in the span (fig. 1, item 14) and switching to the protection virtual path (col. 5, lines 5-8).

3. Regarding claims 11-12, the path may be a span (fig. 2, V4 or V5) or several spans (V1 or V2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakauchi (US 5,239,537) in view of Fredette et al. (US 2004/0156310).

1. Regarding claims 1 and 10, Sakauchi discloses a method for protecting a span in a communication network (fig. 2), where the span connects a first node (fig. 1, node 1) to a second node (node 6). The method comprises creating a protection virtual path (V11) connecting the first and second node through at least a third node (nodes 3 and 5; col. 5, lines 5-8) using a routing protocol and a signaling protocol (col. 2, lines 8-15; col. 2, lines 58-63; note: inherent signaling to set-up connections), monitoring a failure condition in the span (fig. 1, item 14) and automatically switching to the protection virtual path (col. 5, lines 5-8).

2. However, Sakauchi does not explicitly disclose creating new protection virtual paths after a failure. Fredette discloses creating new backup paths after a fault restoration (fig. 3, steps 306 and 308). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to create new backup paths in the invention of Sakauchi in order to continually provide a fault tolerant network.

Claims 2-3, 5-7 and 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakauchi (US 5,239,537) and Yamashita et al. (US 5,307,353).

3. Regarding claims 2-3, 5-7 and 13-17, Sakauchi disclose a method for protecting a span in a communication network (fig. 2), where the span connects a first node (fig. 1, node 1) to a second node (node 6). The method comprises creating a protection virtual path (V11)

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connecting the first and second node through at least a third node (nodes 3 and 5; col. 5, lines 5-8) using a routing protocol and a signaling protocol (col. 2, lines 8-15; col. 2, lines 58-63; note: inherent signaling to set-up connections), monitoring a failure condition in the span (fig. 1, item 14) and automatically switching to the protection virtual path (col. 5, lines 5-8).

4. However, Sakauchi does not disclose working and protected links. Yamashita discloses working and protected links in a network (fig. 4C). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide a backup link in the invention of Sakauchi in order to provide link redundancy during a partial point-to-point failure (col. 3, lines 42-46).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakauchi in view of Yamashita et al, as applied to claim 2 above, in further view of Fredette et al. (US 2004/0156310).

5. Sakauchi in view of Yamashita does not explicitly disclose creating new protection virtual paths after a failure. Fredette discloses creating new backup paths after a fault restoration (fig. 3, steps 306 and 308). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to create new backup paths in the invention of Sakauchi in view of Yamashita in order to continually provide a fault tolerant network.

Claim 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakauchi (US 5,239,537) in view of Yamashita et al. (US 5,307,353) and Fredette et al. (US 2004/0156310).

6. Regarding claims 18-24, Sakauchi disclose a method for protecting a span in a communication network (fig. 2), where the span connects a first node (fig. 1, node 1) to a second

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node (node 6). The method comprises creating a protection virtual path (V11) of a transit list (fig. 3) connecting the first and second node through at least a third node (nodes 3 and 5; col. 5, lines 5-8) using a routing protocol and a signaling protocol (col. 2, lines 8-15; col. 2, lines 58-63; note: inherent signaling to set-up connections), monitoring a failure condition in the span (fig. 1, item 14) and automatically switching to the protection virtual path (col. 5, lines 5-8).

7. However, Sakauchi does not disclose working and protected links. Yamashita discloses working and protected links in a network (fig. 4C). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide a backup link in the invention of Sakauchi in order to provide link redundancy during a partial point-to-point failure (col. 3, lines 42-46).

8. Further, Sakauchi in view of Yamashita does not explicitly disclose creating new protection virtual paths after a failure. Fredette discloses creating new backup paths after a fault restoration (fig. 3, steps 306 and 308). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to create new backup paths in the invention of Sakauchi in view of Yamashita in order to continually provide a fault tolerant network.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 571-272-3166. The examiner can normally be reached weekdays from 11:00 AM to 7:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 571-272-3174. The centralized fax number for the

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Patent Office is 571-273-8300. For non-official communications, the examiner's personal fax number is 571-273-3166 and the examiner's e-mail address is kevin.harper@uspto.gov.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications associated with a customer number is available through Private PAIR only. For more information about the PAIR system, see portal.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Kevin C. Harper', is positioned above the printed name.

Kevin C. Harper

July 11, 2005